Example title:

Field Release of a Nonindigenous Sawfly, *Heteroperreyia hubrichi* (Hymenoptera: Pergidae), for Biological Control of Brazilian Peppertree, *Schinus terebinthifolius* (Anacardiaceae)

DRAFT

Environmental Assessment

September 2000

Proposed Action: The University of xxxxxx proposes to release the non-indigenous sawfly, *Heteroperreyia hubrichi* (Hymenoptera: Pergidae) for the biological control of Brazilian peppertree, *Schinus terebinthifolius* (Anacardiaceae), under permit from the USDA, Animal and Plant Health Inspection Service.

Type of statement: Draft Environmental Assessment

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1. Purpose and Need for the Proposed Action

1.1 The University of XXXXXX proposes to release a nonindigenous sawfly, *Heteroperreyia hubrichi* Malaise (Hymenoptera: Pergidae), in central and southern Florida for the biological control of Brazilian peppertree, *Schinus terebinthifolius* Raddi (Anacardiaceae) under permit from the USDA, Animal and Plant Health Inspection Service. Describe the insect/pathogen and how it will affect the target weed.

Indicate how the insect was identified, who identified it and where voucher specimens are held.

The objectives of the proposed action are.....Describe the purpose of release, negative characteristics of plant on humans, habitats, animals, etc.

1.2 APHIS must decide:

A. To deny the permit application (no action)
B. To issue the permit as submitted
C. To issue the permit with management constraints or mitigation measures.

1.3 Issues arising from the field release of *XXXXXX* are:

A. Will *(biocontrol agent)* attack non-target plants within and outside of the area infested with *(target weed)*?

B. Will *(biocontrol agent)* affect a Federally listed threatened or endangered species or other species of special concern?

1.4 The pending application for release of this biocontrol agent into the environment was submitted by the University of XXXXXX in accordance with the provisions of the Plant Protection Act of 2000 (7 USC 7701 *et seq*.). This environmental assessment (EA) was prepared by APHIS in compliance with the National Environmental Policy Act (NEPA) (42 USC 4321 *et seq.*) as prescribed in implementing regulations adopted by the Council on Environmental Quality (40 CFR 1500-1509), by USDA (7 CFR 1b), and by APHIS (7 CFR 372).

2. Alternatives Including the Proposed Action

2.1 This chapter will explain the alternatives available for the control of (target weed), including no action, and summarize the potential environmental consequences of the alternatives.

2.2 Description of the alternatives.

2.2.1 Alternative 1 - No Action: Under this alternative, APHIS would not issue a permit to the University of XXXXX for the field release of *(biocontrol agent)* for the control of in (location of release). The release of this biocontrol agent would not take place.

2.2.2 Alternative 2 - Issue the Permit (Preferred Alternative): Under this alternative, APHIS would issue a permit to the University of XXXXX for the field release of *(biocontrol agent)* for the control of (target weed) in (location of release). This permit would contain no special provisions or requirements concerning release procedures, post release monitoring, or mitigating measures.

2.2.3 Alternative 3 - Issue the Permit with Specific Management Constraints and Mitigating Measures: Under this alternative, APHIS would issue a permit to the University of XXXXXX for the field release of *(biocontrol agent)* for the control of (target weed) in (location of release). However, the permit would contain special provisions or requirements concerning release procedures, post release monitoring, or mitigating measures.

2.3 The following alternatives were considered but are not being evaluated except as consequences of the "No Action" alternative. The following alternatives are not alternatives for decisions to be made by APHIS, but are presently being used to control (target weed) by public and private concerns in (location of release).

(Describe current chemical, mechanical, cultural, biological, etc. practices that are currently conducted to control the target weed in the area of release in format below).

2.3.1 Chemical Control: Describe all chemical controls used in area of release. The continued use of chemical controls would be a result of APHIS choosing the "No Action" alternative.

2.3.2 Mechanical Control: Describe all mechanical controls used in area of release. The continued use of mechanical controls would be a result of APHIS choosing the "No Action" alternative.

2.3.3 Cultural Control: Describe all cultural controls used to control target weed in area of release. The continued use of cultural controls would be a result of APHIS choosing the "No Action" alternative.

2.4 Summary of Consequences (Construct a table similar to the following example)

Table 1. Summary of Consequences

Consequences	No Action	Issue Permit	Issue Permit with conditions
Effects on non-target organisms	Use of non-selective herbicides would cause harm to native plants and cause water quality to be threatened.	None expected	None expected
Effects on threatened and endangered species	Would expose T&E species to the effects of herbicides and disturbance of critical habitat from mechanical controls.	None expected	None expected

3. Affected Environment

3.1 Describe the affected environment. Include a general description of the environment in which the target weed exists. Include water, non-target plants, animals, and human populations within the area. native species after storms open up the canopy.

3.1.1 List the native and introduced plants for which tests were conducted on host preference and which occur inside and outside of the infested area. Summarize host specificity data here in word form but also include a summary table if possible. Do not make a table of your raw data or other non-summarized data. Interpretation of your data is important in this section.

3.1.2 Describe the presence of Federally listed threatened and endangered plant, animal, etc. species present in the infested area and those which may be affected if the biocontrol agent were to spread beyond the present target weed infested area.

3.1.3 Describe any minority and low income populations that may be affected by the proposed release of the biological control agent or if there are children present in the infested area. If none, say so. Example: No minority, low income populations, or children should be negatively impacted due to the proposed action. Potential reductions in herbicide usage to control (target weed) may even be beneficial to human populations.

4.0 Environmental Consequences

4.1 This chapter will analyze the potential environmental consequences of each alternative on the resources described in Chapter 3.

4.2 Effects of Alternative 1 - No Action

4.2.1 Effects on Non-Target Organisms: This section would describe the effects of chemical, mechanical, etc. controls listed previously on non-target organisms. Include both direct and indirect effects and cumulative impacts. Include a discussion of any incomplete or unavailable information.

4.2.2 Effects on Threatened and Endangered Species: This section would describe the effects of chemical, mechanical, etc. controls listed previously on threatened and endangered species. Include both direct and indirect effects and cumulative impacts. Include a discussion of any incomplete or unavailable information.

4.3 Effects of Alternative 2 - Issue Permit

4.3.1 Effects on Non-Target Organisms: This section would describe the effects on non-target organisms if the permit were issued. Include both direct and indirect effects and cumulative impacts. Include a discussion of any incomplete or unavailable information. Host specificity data from the literature and other studies may be included here.

4.3.2 Effects on Threatened and Endangered Species: This section would describe the effects on T&E organisms if the permit were issued. Include both direct and indirect effects and cumulative impacts. Include a discussion of any incomplete or unavailable information. Host specificity data from the literature and other studies may be included here.

4.4 Effects of Alternative 3 - Issue the Permit with Specific Management Constraints and Mitigating Measures

4.4.1 Effects on Non-Target Organisms: This section would describe the effects on non-target organisms if the permit were issued with specific constraints or mitigating measures. Include both direct and indirect effects and cumulative impacts. Include a discussion of any incomplete or unavailable information. If there are no proposed measures, say so. Example: No specific management constraints or mitigating measures have been recommended for this species. Therefore, under this alternative, impacts on non-target organisms would be identical to those described in 4.3.1.

4.4.2 Effects on Threatened and Endangered Species: This section would describe the effects on T&E species if the permit were issued with specific constraints or mitigating measures. Include both direct and indirect effects and cumulative impacts. Include a discussion of any incomplete or unavailable information. If there are no proposed measures, say so. No specific management constraints or mitigating measures have been recommended for this species. Therefore, under this alternative, impacts on threatened and endangered organisms would be identical to those described in 4.3.2.

4.5 Discuss any disproportionate effects to low income or minority populations or undue risks for children. If there are none, say so. Example: No disproportionate effects are expected to impact low income or minority populations or pose undue risks for children.

4.6 Describe unavoidable effects of the proposed action including unsuccessful control of the target pest. Example: An unavoidable effect of the proposed action would be the unsuccessful control of the target pest. The success rate of biological control of weeds is approximately 30%. Should the proposed action be unsuccessful, the present chemical and mechanical control activities would continue. (Target weed) would continue to expand into areas presently uninfected.

4.7 Describe irreversible or irretrievable commitment of resources. Irreversible commitments are those that cannot be reversed and irretrievable commitments are those that are lost for a period of time. Example: Once a biological control agent such as *(biocontrol agent)* is released into the environment and it become established, it could move from the target plant to non-target plants and itself become a pest. If a host shift does take place, the resulting effects could result in environmental impacts that may not be easily reversed. Biological control agents such as *(biocontrol agent)* generally spread even without the agency of man. In principle, therefore, release of these insects at even one site must be considered equivalent to release over the entire area in which potential host plants occur and in which the climate is suitable for reproduction and survival.

5. Agencies and Persons Consulted

List preparers and affiliations of the EA, anyone consulted for information or for review of the EA.

6. References Cited

7. Appendices

Appendix 1. Application for a permit to release *(biocontrol agent)* in the United States.

Appendix 2. Determination by U. S. Fish and Wildlife Service that *(biocontrol agent)* poses no risk to threatened and endangered species. (Letter of concurrence)

Other appendices may be appropriate if necessary.